9-2014

GEO 101N.02: Introduction to Physical Geology

Marc S. Hendrix
University of Montana - Missoula, marc.hendrix@mso.umt.edu

Geosciences 101 – section 2
Introduction to Physical Geology

Fall Semester, 2014
Professor Marc S. Hendrix

Class meeting times:	Monday, Wednesday, Friday 2:10-3:00 p.m. August 25-December 5, inclusive
Hendrix Office Hours:	Monday, Wednesday, Friday – 1:00-2:00 p.m.
Exceptions:	September 1, November 26, November 28
Final Exam:	Monday, December 8, 1:10-3:10 p.m.

GEO101/section 2 note: Although another section of Geosciences 101 is being taught MWF 9:10-10:00 a.m., that section is not interchangeable with this section. Both the lecture and exam content will differ between the two sections, and the final exams for each section will not be shared.

Moodle Web Site: Aside from lectures, Hendrix office hours, and scheduled appointments, formal communications relative to class content and announcements will be handled through the course moodle page and the UM email system. UM policy requires that all electronic communications (i.e., email) take place via the UM email server, so please use your UM email account when contacting Prof. Hendrix about this course.

Course Grading System: Final grades for this course will be based solely on the following:

10% course attendance: Each lecture is required. You are permitted to miss three (3) lectures without any penalty, but attendance will be taken at the beginning of every lecture via iclicker. For each lecture absence beyond three, you will need a written excuse from your doctor or must have a family emergency about which you have notified Prof. Hendrix.

15%: iclicker questions during each lecture: Each lecture, between one and three iclicker questions will be posed for credit. Additional iclicker questions may be posed for practice. Each iclicker question will be identified as practice or 'for credit' ahead of time. The three lowest total iclicker scores for three (3) lectures will be dropped and will not count against your final grade.

25%: Midterm Exam 1: Date
25% Midterm Exam 2: Date
25% Final Exam, December 8 1:10-3:10

Each midterm exam will consist of 50 multiple choice questions. The final exam will consist of 75 multiple choice questions. Examples of prior GEO 101 exams by Hendrix are available on the course moodle website.

No extra credit will be offered.

Course Book: This course will utilize Essentials of Geology, 4th edition, by Stephen Marshak. In addition to course content delivered via lectures, mostly via powerpoint, you are responsible for keeping up with the assigned reading. Exam questions will be derived both from the lecture material and the assigned reading.

Weekly Course Schedule:

Weekday/Date: Lecture/discussion topic	*Assigned Reading*
Monday, August 25: Course introduction, iclicker test, What is physical geology?	Marshak Prelude
Wednesday, August 27: The Universe, Solar System, and Earth	Marshak Ch. 1
Friday, August 29: Evolution of the Earth and Earth-Moon pair	
Monday, September 1: NO CLASS – Labor Day Holiday	
Wednesday, September 3: Discovery of Continental Drift and Seafloor Spreading	Marshak Ch. 2
Friday, September 5: Theory of Plate Tectonics – a first look	Marshak Ch. 2
Monday, September 8: Earth Minerals I	Marshak Ch. 3
Wednesday, September 10: Earth Minerals II	
Friday, September 12: Earth Rocks I	Marshak Interlude A
Monday, September 15: Earth Rocks II	Marshak Ch. 4
Wednesday, September 17: Earth Rock and Mineral Resources I	Marshak Ch. 12
Friday, September 19: Earth Rock and Mineral Resources II	Marshak Ch. 12
Monday, September 22: Earth Rock and Mineral Resources III	Marshak Ch. 12
Wednesday, September 24: Midterm Exam 1, covering all course content to date	
Friday, September 26: Igneous Rocks I – Magma and igneous intrusions	Marshak Ch. 4
Monday, September 30: Igneous Rocks II – Volcanoes and volcanic eruptions	Marshak Ch. 5
Wednesday, October 1: Igneous Rocks III – Volcanic hazards	
Friday, October 3: Sediments and sedimentary rocks I: weathering and soils	Marshak Interlude B
Monday, October 6: Sediments and sedimentary rocks II: sedimentary structures and depositional environments	Marshak Ch 6
Wednesday, October 8: Sediments and sedimentary rocks III: sedimentary basins	
Friday, October 10: Metamorphic Rocks I	Marshak Ch 7
Monday, October 13: Metamorphic Rocks II	
Wednesday, October 15: The Rock Cycle	Marshak Interlude C
Friday, October 17: Fossils and Fossil Preservation	Marshak Interlude E
Monday, October 20: Fossils and Evolution	
Wednesday, October 22: Deep Time I	Marshak Ch. 10
Friday, October 24: Deep Time II	
Monday, October 27: Evolution of the Earth I	Marshak Ch. 11
Wednesday, October 29: Evolution of the Earth II	
Friday, October 31: Midterm Exam 2, covering all course content to date	
Monday, November 3: Earthquakes and Earth's Interior I	Marshak Ch. 8
Wednesday, November 5: Earthquakes and Earth's Interior II	Marshak Interlude D
Friday, November 7: Crustal Deformation and Mountain Building I	Marshak Ch. 9
Monday, November 10: Crustal Deformation and Mountain Building II	

Wednesday, November 12: Landscapes and the Hydrologic Cycle I	Marshak Interlude F
Friday, November 14: Landscapes and the Hydrologic Cycle II	
Monday, November 17: Landslides and Mass Wasting	Marshak Ch. 13
Wednesday, November 19: Streams, lakes, and groundwater I	Marshak Ch. 14
Friday, November 21: Streams, lakes, and groundwater II	Marshak Ch. 15
Monday, November 24: Coastlines and Oceans I	Marshak Ch. 15
Wednesday, November 26: NO CLASS, Thanksgiving Holiday	
Friday, November 28: NO CLASS, Thanksgiving Holiday	
Monday, December 1: Coastlines and Oceans II	
Wednesday, December 3: Deserts, Glaciers, and Climate Change I	Marshak Ch. 17
Friday, December 5: Deserts, Glaciers, and Climate Change II	Marshak Ch. 18

Monday, December 8: 1:10-3:10 p.m. FINAL EXAM, cumulative – covers all course content